

IN THE SPECIFICATION

Please replace the paragraph appearing on page 8, line 31 to page 9, line 2 with the following amended paragraph:

According to a particular embodiment, notably corresponding to the trellis structure, said ~~biorthogonal~~ biorthogonal multicarrier signal is a OFDM/OM signal. Special technical solutions may then be contemplated.

On page 12, line 16, amend the heading as follows:

1-Formulation as a modulated transmultiplexer 10

On page 12, after line 19 insert the following paragraphs:

The modulation part 13 comprises 2M branches 131<sub>0</sub> to 131<sub>2M-1</sub> receiving source data a<sub>i,n</sub>. Each source data is multiplied by  $e^{j\frac{\pi}{2}}$  (1311) to obtain x<sub>i</sub>(n), which feed an expander of order M 1312, and then a synthesis filter F<sub>i</sub>[z] 11.

The outputs of the synthesis filters feed an adder 132 to form a signal s sent through a channel 14. In the demodulation part 15, the signal s feeds 2M branches 151<sub>0</sub> to 151<sub>2M-1</sub> each comprising analysis filter H<sub>i</sub>[z] 12, a decimator of order M 152, a multiplication 153 by  $e^{j\frac{\pi}{2}(n-\alpha)}$  and an extraction of the real part 154.

On page 14, after line 27, insert the following paragraphs:

Data feeding each branch of the modulator of figure 5 are multiplied (53) by  $2M\sqrt{2c}^{-j\frac{2\pi}{2M}i\frac{D-M}{2}}$ , and then transformed through IFFT 51. The outputs of the IFFT feed

polyphase components 52 (see Annex C) and expander 1312.

The received signal  $s(k)$  is directed to  $2M$  branches (figure 6), each comprising a decimator 152 and a polyphase component 62, which feeds an IFFT 61. The  $2M$  outputs of the IFFT comprise a multiplier 63

On page 16, amend Equation (68) as follows:

$$= 2M\sqrt{2}e^{-j\frac{2\pi}{2M}l\frac{D+M}{2}} IFFT\left(\hat{x}_l^{(1)}(n-\alpha), \dots, \hat{x}_{2M-1}^{(1)}(n-\alpha)\right) \underline{\underline{[l]}}$$